



ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM FACT SHEET

This document provides pertinent information concerning the issuance of the Arizona Pollutant Discharge Elimination System (AZPDES) stormwater permit listed below. The Arizona Department of Transportation (ADOT) is regulated under the AZPDES permitting program because it owns and operates a statewide municipal separate storm sewer system (MS4), numerous construction sites, and several industrial facilities. The conditions contained in the permit are intended to maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 *et. seq.* The permit will be issued for a period of five years.

Permittee's Name:	Arizona Department of Transportation (ADOT)
Mailing Address:	Office of Environmental Services 206 S. 17th Avenue, Mail Drop 102A Phoenix, AZ 85007
Contact person:	Todd Williams, Director Office of Environmental Services (602) 712-7391
AZPDES Permit No.:	AZS000018-2008

I. BACKGROUND

The Water Quality Act of 1987 added Section 402(p) of the Clean Water Act which required the U.S. Environmental Protection Agency (EPA) to develop a phased approach to regulate stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program. EPA published the final regulations on the first phase of the NPDES stormwater program on November 16, 1990. These regulations, commonly known as the Phase I stormwater regulations, established permit application requirements for discharges from municipal separate storm sewer systems (MS4s) serving a population of 100,000 or more.

The term "municipal separate storm sewer" is defined at 40 CFR §122.26(b)(8). MS4s include any publicly-owned conveyance or system of conveyances used for collecting and conveying stormwater that discharges to waters of the United States. Such a system may include roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains. The term "municipality" is defined at 40 CFR §122.2 and applies to ADOT as a public body which has jurisdiction over disposal of sewage, industrial wastes or other wastes. The term does not include separate storm sewers in very discrete areas, such as individual buildings. As ADOT is a large MS4, it applied for an individual MS4 stormwater permit, and EPA issued ADOT a Phase I MS4 stormwater permit on September 30, 1999.

On December 5, 2002, the Arizona Department of Environmental Quality (ADEQ) received authorization to implement the AZPDES program in Arizona. ADEQ issued a general permit in December 2002 offering permit coverage for small MS4s (Phase II); followed by a construction general permit (CGP) in February 2003 covering construction sites disturbing one acre or more. ADEQ adopted EPA's Multi-sector General Permit (MSGP), originally issued October 30, 2000, to

cover stormwater discharges associated with industrial activity (see 65 Fed. Reg. 64746, October 30, 2000).

Status of ADOT's Phase I Permit

The Phase I MS4 stormwater permit that EPA Region 9 issued to ADOT on September 30, 1999 expired on August 31, 2002 and has remained administratively continued until the new permit is issued, in accordance with A.A.C. R18-9-B904(C). This new statewide stormwater permit replaces ADOT's Phase I MS4 Stormwater Permit.

ADOT submitted a reapplication for the Phase I MS4 permit in February 2002. Additionally, ADOT is subject to provisions under the Phase II MS4 regulations, and therefore, in March 2003, ADOT reapplied to include the Phase II MS4 areas and requested that the Phase I and Phase II permits be combined. However, the issuance of a Consent Order in 2004 suspended ADEQ's review of that application.

Background for the Consolidated Permit

The decision to issue ADOT an individual stormwater permit of this scope is the direct result of a Consent Order that became effective on January 30, 2004. The Consent Order was an initiative by ADEQ designed to comprehensively address ADOT's non-compliance with the state's Aquifer Protection Program regulations, drywell regulations, and stormwater provisions regulated under the Clean Water Act as administered by the state of Arizona.

This permit covers a diversity of activities and locations throughout the state from which stormwater discharges associated with construction, industrial and municipal activities may occur. This permit is the first of its kind in Arizona; hence there was no application format or template to guide ADOT in developing its submittals. ADEQ determined that many of the traditional application components required per A.A.C. R18-9-B901 were either already provided by ADOT or were not essential for determining appropriate permit conditions for ADOT's current activities. Therefore, ADEQ developed a unique application format for ADOT's use and directed ADOT, in a letter dated September 28, 2004, to use this format in its AZPDES permit application for stormwater discharges.

The application format recognized ADOT's unique qualities as an MS4, because its discharging activities resemble those of a municipality, an industry, and a construction site operator. In other words, ADOT's activities require AZPDES permit coverage for three main classes of stormwater discharges: municipal separate storm sewer system, industrial activity, and construction activity. The resultant tailored application requirements enabled ADOT to focus resources on the most important descriptors of activities that impact stormwater quality statewide.

ADOT submitted an application for an individual statewide MS4 AZPDES stormwater permit in March 2005. The application, and resultant permit, excludes all tribal lands ("Indian Country") within the state of Arizona. ADEQ declared the application "administratively complete" on July 8, 2005, which acknowledged that ADOT's application was timely and that it contained all of the requested elements pursuant to ADEQ's earlier letter.

Although this permit is viewed as a re-issuance of the administratively continued Phase I permit, the new permit's scope and requirements greatly expand the scope of the former permit. Foremost, this new permit covers all stormwater discharges associated with construction, industrial and municipal activities under ADOT's control throughout the state.

Permit Development

ADOT submitted a Statewide Stormwater Management Program (SSWMP) document providing detailed descriptions of all ADOT's activities subject to the Phases I and II stormwater regulations. The SSWMP addresses operations of construction sites, 19 maintenance facilities listed in Section 4.2.1.1, and its storm sewer system.

This stormwater permit replaces and supersedes ADOT's coverage under the Phase I municipal stormwater permit issued by EPA on September 30, 1999 and rescinds ADOT's coverage under CGP and MSGP.

Development of this permit consisted of a review of ADOT's existing MS4 permit (AZS000018) and associated fact sheet, ADOT's draft SSWMP, and other reference materials as appropriate, such as other MS4 permits and EPA guidance documents. Part VII of this fact sheet contains the complete reference list.

II. CHANGES TO PERMIT FORMAT AND CONTENT

A. Statewide

Federal regulations allow for the issuance of system-wide MS4 NPDES permits. ADOT's new permit is intended to cover all stormwater discharges associated with municipal, construction and industrial activities under ADOT's control in all areas within the state of Arizona.

(Note: subsequent references to the 'state', 'Arizona' or the scope of this permit within this Fact Sheet or the applicability of conditions in the permit refer to activities in Arizona except Indian Country.)

B. Combination

The format of this permit reflects the fact that ADOT's discharging activities resemble those of a municipality, a construction site operator, and an industry. Historically, ADOT applied for coverage of stormwater discharges associated with specific construction or industrial activities through the construction and multi-sector general permits, respectively. The new permit covers ADOT's statewide municipal storm sewer system and ADOT construction and industrial activities that require permitting under AZPDES regulations. ADOT currently contracts out much of the work performed on behalf of the agency. However, ADOT's responsibilities include ensuring work done on their behalf complies with environmental laws. The permit and the definition of ADOT clarifies ADOT's oversight roles for contractors working on behalf of ADOT. ADOT's contractors on construction projects, are however, still required to obtain coverage under, and comply with, the Arizona Construction General Permit as well.

ADEQ has reviewed a number of ADOT Stormwater Pollution Prevention Plans (SWPPPs) and determined that in some cases they did not fully address the intent of the MSGP or the CGP, as applicable. . Thus, the new permit requires writing, or in a few cases rewriting, SWPPPs in accordance with the specific language in Parts 4.0, 5.0 and 6.0. These provisions direct ADOT on content of all SWPPPs, whether or not the maintenance facilities that require SWPPPs, construction activity, or for individual industrial facilities. One unique category of industrial facility that ADOT is responsible for is material sources, which includes borrow pits, cinder pits, sand and gravel operations, stone quarries, and processing of these non-metallic mineral products. The permit requires that SWPPPs be written for any material source sites that are within ¼ mile of an impaired water or unique water.

The draft permit specifies a number of requirements that may apply only to the "MS4 compliance area". This term refers to the following 50 currently-regulated MS4s, besides ADOT, in the state of Arizona:

Apache Junction
Arizona State University, East
Arizona State University, Main
Arizona State University, West
Avondale
Camp Verde
Chandler
Coconino County
Cottonwood
Davis Monthan Air Force Base
Douglas
El Mirage
Flagstaff
Fountain Hills
Gilbert
Glendale
Goodyear
Guadalupe
Lake Havasu

Litchfield Park
Luke Air Force Base
Marana
Maricopa County
Marine Corps, Yuma
Mesa
Nogales
Northern Arizona
University
Oro Valley
Paradise Valley
Peoria
Phoenix
Pima County
Pinal County
Prescott
Prescott Valley
Scottsdale
Sedona

Sierra Vista
South Tucson
Surprise
Tempe
Tolleson
Tucson
University of Arizona
Veterans Hospital, Phoenix
Veterans Hospital, Tucson
Yavapai County
Youngtown
Yuma (City)
Yuma County

C. Enhanced Specificity

This permit differs significantly from the previous Phase I permit, both in format and detail, but does include most of the former permit's conditions. The previous Phase I permit was written by EPA in a generic approach to address the Phase I facilities, most of which are municipalities. The Phase I permit's brevity and vagueness when describing permit conditions did not provide ADOT with a clear understanding of requirements and also made enforceability difficult. ADEQ's approach in reissuing Phase I permits is to clarify the stormwater program requirements. Therefore, the permit includes specific permit conditions and clarifies reporting information.

D. Reduction of Permit Documents

This permit minimizes references to other documents and instead, specifies requirements within the permit itself. Accompanying documents have been modified over time; as a result, existing permit requirements are contained in multiple documents making it difficult to track the permit conditions or assess permit compliance.

ADOT has developed a draft Statewide Stormwater Management Plan (SSWMP), three monitoring manuals, and two best management practices (BMP) manuals to provide an appropriate level of detail of how the statewide management program components will be implemented. The permit references these documents and also requires that they be updated to reflect the terms of the permit. If inconsistencies exist between the provisions of these documents and the permit as written, the permit language prevails.

E. Inclusion of Measurable Goals

This permit contains "measurable goals" for measuring the progress of implementation of the SSWMP. ADOT has been tracking the progress of specific MS4 program activities throughout the prior permit term and has been providing the status of these activities to ADEQ in annual reports. While tracking program activities is essential for reporting ADOT's accomplishments and progress each year, it does not ensure successful program implementation. Instead, specific measurable goals must be established for each activity to identify the direction or target of the stormwater program. Such objectives are necessary to establish an effective level or degree of implementation of a specific stormwater practice, such as the frequency or amount of an activity. Without such measurable goals, neither ADOT nor ADEQ can evaluate the success of the program or assess compliance with permit conditions.

III. SUMMARY OF PERMIT CONDITIONS

A. Authorized Discharges

This permit authorizes stormwater (and some non-stormwater) discharges from certain ADOT facilities, including their storm sewer system, construction sites, and industrial facilities to the MS4 system and to waters of the U.S. The AZPDES authorizing statute uses the term "*navigable*

waters", which is defined as equivalent to the waters of the U.S. However, because the term *navigable waters* can be confusing to the general public (i.e., the definition of navigable waters has traditionally included ephemeral washes, intermittent streams, playas, and wetlands, that may not be able to be traveled by conventional vessels), this permit references discharges to waters of the U.S.

Arizona Surface Water Quality Standards (WQS) that apply to the surface waters receiving discharges from ADOT are specified in A.A.C. Title 18, Chapter 11, Article 1. There are special provisions for discharges to waters identified as "unique waters" (under A.A.C. R-18-11-112) or to those on Arizona's 303(d) and Other Impaired Waters List. The permit requires additional visual, and in some cases, analytical monitoring of facilities in these areas. Additionally, there is a prohibition on non-stormwater discharges if there is a potential to reach unique or impaired waters.

B. Limits of Coverage

This permit authorizes stormwater discharges to waters of the U.S. from all outfalls within ADOT's storm sewer system and stormwater associated with construction and industrial activities and maintenance facilities. Additionally, in order to control the discharge of pollutants from the system, ADOT also has responsibilities to control or prohibit non-stormwater discharges to their storm sewer system, except for those conditionally authorized in Part 1.3.2 of the permit. To clarify, this prohibition does not extend to discharges not regulated by the Clean Water Act which are beyond the scope of this permit, including agricultural return flows.

1. Unique Waters

This permit includes specific conditions to protect unique waters within the State of Arizona. A '*unique water*' is a surface water that has been identified by ADEQ as an outstanding water resource in accordance with A.A.C. R18-11-112. ADEQ anticipates that the term '*unique water*' will be replaced with '*outstanding Arizona water*' within the permit term. Non-stormwater discharges that have the potential to reach a unique water are not allowed under this permit. ADEQ also anticipates that when the conditions of this permit are complied with, there will also be no dry weather discharges of sediments to unique waters.

2. Impaired Waters

This permit also includes specific conditions to protect impaired surface waters within the State of Arizona. An '*impaired water*' is a surface water that has been assessed as not attaining a water quality standard for at least one designated use. Impaired waters are listed in Arizona's 303(d) and Other Impaired Waters List available at www.azdeq.gov/environ/water/assessment/assess.html.

The list includes both impaired and not attaining waters. A not attaining water is a surface water which is assessed as impaired, but is not placed on the 303(d) List because:

- a. A TMDL is prepared and implemented for the surface water;
- b. An action, which meets the requirements of R18-11-604(D)(2)(h), is occurring and is expected to bring the surface water to attaining before the next 303(d) List submission; or
- c. The impairment of the surface water is due to pollution but not a pollutant, for which a TMDL load allocation cannot be developed.

ADEQ is to provide an updated list of impaired waters to EPA for approval in each even-numbered year. At the time of permit issuance, the 2004 list is in place, and although a 2006/2008 list is in progress, the permit conditions reference the 2004 list currently in place.

The permit also prohibits any non-stormwater discharges that may reach an impaired water from being discharged under this permit.

C. Non-stormwater Discharges

This permit only allows those non-stormwater discharges, whether mixed with stormwater or not,; 1) that are listed in Table 1.3 of the permit or 2) that are authorized in accordance with the special process devised for ADOT to add additional sources (see Section 1.3.8). Additionally, if other discharges are authorized under a separate AZPDES permit such as the De Minimus General Permit, or an individual permit, they may co-mingle with ADOT's stormwater discharge.

Section 1.3.8 describes a process by which ADOT may request approval of additional authorized non-stormwater discharges provided they are not a significant source of pollutants. ADOT must receive approval from ADEQ prior to discharge. For approval, ADOT must provide information about proposed discharges, including the character, quantity, and timing of flow. ADEQ recognizes the quantity of the discharge may be a rough estimate and may vary. ADEQ anticipates that a relatively few non-stormwater discharges that were not specifically named in the permit will be eligible for approval.

It is important for ADOT staff and contractors to understand the distinction between 'non-stormwater discharges' and 'potential pollutant sources'. Potential pollutant sources are, as their name implies, sources of pollutants. For instance, a potential pollutant source of oil would be traffic, maintenance and fueling activities, leaks and spills, etc. Other examples of potential pollutant sources include pesticide/fertilizer applications, previous spill sites, sand/salt storage piles, etc. On the other hand, non-stormwater discharges are waste waters or wash waters that leave the site and flow to the street, a storm sewer system, or directly enter a water of the U.S. These discharges are not a result of storm event runoff, nor are they pollutants. They typically, however, contain pollutants. Previous documents developed by ADOT have confused these terms and identified potential pollutant sources and stormwater discharges as non-stormwater discharges. The permit endeavors to clarify the distinction.

The permit also requires all non-stormwater discharges to be eliminated whenever possible as the first and most effective BMP. However, when elimination is not feasible, the non-stormwater discharges which are specifically allowed under this permit must be controlled by ADOT through the implementation of BMPs that will significantly reduce the discharge of pollutants. Illicit discharges (i.e. all other unauthorized non-stormwater discharges) are prohibited and must be investigated upon detection and eliminated to the extent of ADOT's legal authority. Specific permit conditions addressing illicit discharges are addressed in Section 3.2.3 of the permit.

The following are specific non-stormwater discharges or practices which are not included in the list of authorized non-stormwater discharges. These waste waters are not allowed to discharge under this permit:

Non-stormwater Discharge	Reason for Exclusion from Table 1-3
Vehicle and equipment washing	This activity is covered under the Aquifer Protection Program (APP). The APP general permit provisions for vehicle and equipment washing require containment of these wastewaters instead of discharge.
Street (pavement) wash water	ADEQ views this discharge as a potentially significant source of pollutants. This activity is addressed in Section 3.2.6.1 - Storm Sewer System and Highway Maintenance.
Concrete wash-out water	These wastewaters are regulated in the Aquifer Protection program, and addressed in A.A.C. R-18-9-B301(L) which requires freeboard to prevent discharges to surface waters.

Steel wheel roller water	ADEQ views this discharge as a potentially significant source of pollutants and as such is not eligible for inclusion on Table 1-3.
Asphalt cooling water	ADEQ views this discharge as a potentially significant source of pollutants and as such is not eligible for inclusion on Table 1-3.
Effluent or other wastewaters used for dust control or compacting soil	ADEQ encourages the use of reclaimed waters for dust control, compaction and irrigation uses, however, these are to be managed in a way to prevent discharge. This permit and the reuse rules (A.A.C 18-9-704(G)(3)) both prohibit allowing runoff of reclaimed water (i.e. effluent) or mixing with stormwater.
Hydroseeding	This activity is not expected to result in a non-stormwater discharge.
Agriculture return flow	This discharge is not regulated under the Clean Water Act; as such it is neither permitted nor prohibited under this permit.

D. Legal Authority

Conditions for ADOT to establish the legal authority to carry out the permit requirements are specified in Part 2.0 of this permit. The regulations require MS4s to have such authorities. As ADOT is not a traditional MS4, ADEQ recognizes they may have different legal constraints. However, ADEQ believes there are tools and processes that ADOT may use to achieve these goals. The permit requires ADOT to establish and otherwise maintain the legal authority to carry out the terms and conditions of this permit to control the release of pollutants to, and the discharge of pollutants from, the storm sewer system.

E. Statewide Stormwater Management Program (SSWMP)

Conditions for developing and implementing the SSWMP are specified in Section 3.0 of the permit. One of the primary goals of this permit is to minimize the releases to, and the pollutants in discharges from, ADOT's storm sewer system to the "maximum extent practicable" (MEP). The MEP is a unique provision of the Clean Water Act that applies only to discharges from a MS4. To clarify, MEP does not apply to the industrial, construction, or other discharges that ADOT may have statewide other than from the MS4 system.

MEP is the required level of control for pollutants in MS4 stormwater discharges from a storm sewer system as specified in the 1987 amendments to the Clean Water Act. CWA Section 402(p)(3)(B)(iii) requires that a municipal permit require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system design, and engineering methods, and other provisions that the state determines appropriate for the control of such pollutants. The approach to managing stormwater discharges from a storm sewer system is included in a stormwater management program, and for ADOT specifically in the SSWMP.

The SSWMP is a comprehensive document describing a program for controlling pollutants in stormwater runoff from the storm sewer system, and in conjunction with the permit, is the means by which ADOT complies with the MEP standard. The term SSWMP may refer to the written document or the implemented program.

1. SSWMP Components

The Phase I stormwater regulations (40 CFR 122.26(d)(2)(iv)) identified the following general components of a stormwater management program:

- A. Measures to reduce pollutants from commercial and residential areas
- B. Measures to control illicit connections and illegal dumping to the storm sewer system
- C. Measures to reduce pollutants from industrial facilities
- D. Measures to reduce pollutants from construction sites

The Phase II stormwater regulations (40 CFR 122.34(b)) identified the following six minimum control measures of a stormwater management program:

- A. Public Education and Outreach on Stormwater Impacts
- B. Public Involvement/Participation
- C. Illicit Discharge Detection and Elimination
- D. Construction Site Stormwater Runoff Control
- E. Post-Construction Stormwater Management in New Development and Redevelopment
- F. Pollution Prevention/Good Housekeeping for Municipal Operations

For the purposes of ADOT's individual permit, ADEQ developed components of a statewide stormwater management program that combined the Phase I and Phase II requirements into the following measures:

- A. Measures to Control Pollutants through Education
- B. Illicit Discharge/Illegal Dumping Detection and Elimination Measures
- C. Measures to Control Pollutants from New Construction and Land Disturbances
- D. Measures to Control Pollutants from New Development and Redevelopment
- E. Measures to Control Pollutants from Roadways

These five measures were developed to incorporate the requirements of both Phase I and Phase II and are tailored towards ADOT's unique position as a transportation department MS4. These measures are broad areas of practices that must be addressed in ADOT's SSWMP to minimize pollutants in stormwater to the MEP. Each measure targets an area where ADOT or ADEQ considers an increased awareness and/ or explicit coordination will provide an overall positive benefit in reducing pollutants in stormwater discharges.

2. SSWMP Updates

ADOT is currently implementing the draft February 2005 SSWMP. ADOT is required to modify the 2005 SSWMP as necessary to comply with the provisions of this permit, but will continue to implement the 2005 program in the interim. The updated SSWMP is required to be submitted to ADEQ within 12 months of effective date of the permit. The updated and approved SSWMP will replace the draft February 2005 SSWMP and related documents.

This permit also requires ADOT to provide an updated SSWMP toward the end of the permit term for review during permit renewal. This program update is necessary because the SSWMP contains inventories of outfalls, industrial facilities, and other information that may change throughout the permit term.

The SSWMP is an integral and enforceable component of this permit. Where the SSWMP or supporting documents were determined to be inadequate, further requirements are outlined in the permit.

3. SSWMP Modification

ADOT is required to modify the SSWMP as necessary to improve the effectiveness of the program in reducing the release of pollutants to and the discharge of pollutants from the storm sewer system. The SSWMP is intended to be a functioning mechanism for ADOT's use. Therefore, minor changes and adjustments to the various SSWMP elements are expected and may be necessary to more successfully adhere to the goals of the permit. Minor changes to a stormwater management program do not constitute the need for permit modifications as defined in the regulations at 40 CFR §122.6. Part 3.1.6 of the permit describes procedures to be used to perform additions and minor changes to the SSWMP. Modifications to add new practices or controls to the SSWMP or to increase the amount, frequency or other quantity of an existing practice may be implemented at any time and must be described in the Annual Report.

Modifications to replace an ineffective practice may be implemented by ADOT's submittal of a description of the proposed replacement to ADEQ at least 60 days prior to planned implementation of the alternative practice. ADOT must demonstrate that the proposed change is expected to achieve a greater reduction in pollutants and will not cause or contribute to a violation of any surface water quality standard.

The permit does not allow ADOT to remove elements in the SSWMP that are required through permit conditions or regulatory requirements. Any modification to discontinue an existing practice or control, or decrease a minimum requirement, including an amount, frequency, time frame, or any other permit requirement may not be implemented without modification of the permit. Such changes require a request for permit modification, accompanied by a demonstration of how the SSWMP will continue to achieve an equivalent reduction in pollutants.

4. SSWMP Requirements

Similar to the existing permit, this permit requires ADOT to continue to implement and maintain a SSWMP to limit the release of pollutants to and discharge of pollutants from the storm sewer system to the maximum extent practicable. Some specific activities or BMPs from ADOT's draft SSWMP have been written into the permit rather than referenced in separate documents. In some cases, additional BMPs have been included in this permit to address significant sources of pollutants. Since much of ADOT's activities include construction work, it should be noted that the definition of 'pollutant' includes 'cellar dirt' which means construction site waste materials, such as natural rock and soil overburden. Therefore, one of the focuses of the permit is on reducing the discharge of sediments as a result of construction activities and related erosion.

a. **Measures to Control Pollutants through Education**

This measure addresses the three major audiences that ADOT must educate: ADOT employees, ADOT contractors, and the general public. The measure also addresses how ADOT must educate each audience, including training, public education and outreach, public participation and involvement, and intra- and inter-governmental coordination.

Training for ADOT Staff and Contractors - The "Train ADOT Staff and Contractors" BMP includes training related to other measures in the permit, including training on illicit discharges and illegal dumping, non-stormwater discharges, new construction and land disturbances, new development and significant redevelopment, storm sewer system and highway maintenance, good housekeeping and material management practices, and activities at ADOT's regulated industrial facilities. ADOT is developing a two tiered approach to stormwater training: an awareness level and specific training

related to an employee's responsibilities and potential for encounters with stormwater and non-stormwater discharges to the MS4 or to waters of the U.S. To satisfy the general requirement of maximum extent practicable, this permit requires ADOT to ensure its employees receive an initial training within 12 months of the effective date of this permit and again every three years thereafter, or whenever a new employee is hired, or job responsibilities change to newly address stormwater concerns. For ease of reference, all training requirements are described in this section of the permit.

Training and Certification for ADOT Construction Contractors - This measure requires that the Erosion Control Coordinator (ECC) for each ADOT construction project must have satisfactorily completed a 16 hour ECC training program authorized by ADOT. ADOT has co-sponsored this erosion and sediment control course with the Arizona Association of General Contractors. Upon completion of the course, an Erosion Control Coordinator Certificate is awarded.

Public Involvement/Participation - ADOT administers a litter hotline as a member of Arizona Clean & Beautiful. This hotline increases awareness in the general public and notifies offenders that littering is against the law, thereby satisfying a portion of the public involvement participation requirements of the permit.

ADOT implements an Adopt-a-Highway program involving the public in roadside cleanup activities. This permit requires ADOT to educate the public participating in this program on how roadside cleanup benefits stormwater quality.

The permit also requires ADOT to implement additional BMPs to satisfy the maximum extent practicable requirement, including a process for recording and considering public comments on ADOT's SSWMP. Additionally, the permit requires ADOT to implement a reporting system to facilitate and track public reports of spills, discharges, and dumping to its storm sewer system or receiving waters.

Intra-Governmental Coordination - ADOT is a large state agency with nine ADOT Engineering Districts across the state making communication with all staff involved in stormwater management challenging. The permit requires ADOT to establish and ensure coordination within the department. In the draft February 2005 SSWMP, ADOT described 11 Stormwater Advisory Teams (SWATs) charged with developing a common understanding among key staff about the importance of developing a SSWMP. Since SSWMP development, the role of the SWATs has been extended to being tasked with implementing the elements of the SSWMP. ADOT may continue the use of the SWATs or may implement alternate intra-governmental (internal) coordination procedures to ensure compliance with the terms of this permit and to ensure implementation of SSWMP activities. To further enhance internal coordination, ADOT created an Office of Environmental Services in 2006, serving all ADOT organizations and ensuring coordination and implementation of the SSWMP. This office includes District Environmental Coordinator positions for each of the Districts.

b. Illicit Discharge/Illegal Dumping Detection and Elimination Measures

Illicit Discharges - This permit includes practices to minimize, detect, investigate, and eliminate illicit discharges in a timely manner. Two categories of municipal outfalls are of interest in the AZPDES stormwater program. A major outfall is defined at 40 CFR 122.26(b)(5) as "a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent...". The more generic term "outfalls" includes all other outfalls regardless of size.

Note: Outfalls do not include cross-drain structures or culverts installed under a road that function only to maintain the natural flow of surface waters and drainage.

However, a structure that collects or diverts drainage that has contacted the road surfaces for discharge into a waterbody is considered an outfall under this permit.

ADOT has previously identified 71 major outfalls in the large, medium and regulated small MS4 areas. A list of these 71 outfalls must be included in the updated SSWMP. The location and total number of all major stormwater outfalls operated by ADOT is not known at this time. This permit requires ADOT to develop a proposal and schedule to identify the location of all outfalls in the phase II municipalities and priority outfalls statewide. Priority outfalls are those that are to be prioritized for inspection, and as defined in the permit, includes outfalls regardless of size that discharge to unique and impaired waters.

Illicit discharges are also defined in the permit. Discharges from emergency fire fighting activities and exempt agricultural return flows are not considered to be illicit discharges under this permit.

Existing Dry Weather Flows – Historically, dry weather discharges have been detected at six ADOT outfalls. ADOT collected grab samples for discharge characterization of these non-stormwater discharges in the summer of 2005 and summarized the results in the Summary Report Dry Weather Screening (ADOT, 2005). Possible sources of these discharges were discussed in this report but no determination was made about sources of the flows. The field screening requirements are designed to identify sources of non-stormwater which discharge to the MS4 (EPA, 1990). This permit requires ADOT to investigate the sources and, if appropriate, take action to eliminate the dry weather flows from the six major outfalls within 90 days of the effective date of this permit.

Dry Weather Monitoring

This permit requires ADOT to continue to inspect outfalls to detect illicit discharges. In the first year of the permit term, ADOT is required to inspect half of the 71 major outfalls identified in the September 2005 Phase I and Phase II Storm Water System Maps. In the second year of the permit term, ADOT is to inspect the remainder of these 71 major outfalls. This is a phase-in provision as the permit requires annual inspection of all 71 each year thereafter in the remainder of the permit term. Because of the relatively small number of outfalls (for an MS4), annual inspection is considered a reasonable target and was increased from the previous permit's requirement of 20% per year. Inspection of identified Priority Outfalls is also required at least once this permit term. The permit includes guidance on dry weather monitoring in Appendix A which may be incorporated as appropriate into ADOT's Stormwater Monitoring Guidance Manual for MS4 Activities.

c. Measures to Control Pollutants from New Construction and Land Disturbances

Part 5.0 of the permit and Part H of this fact sheet address measures to control pollutants from new construction and land disturbances.

d. Measures to Control Pollutants from New Development and Redevelopment

This measure applies in areas undergoing new development or redevelopment in the MS4 Compliance areas and near unique and impaired waters. The federal register refers to 'redevelopment' as alterations of a property that change the footprint of a site or building in such a way that results in the disturbance of equal to or greater than one acre of land. The term is not intended to include such activities as exterior remodeling.

Post-construction controls are necessary because runoff from developed areas has been shown to significantly affect receiving water bodies. Many studies indicate that prior planning and design for the reduction of pollutants in post-construction stormwater discharges is the most cost-effective approach to stormwater quality

management. A variety of relatively low cost post-construction controls can be employed to reduce pollutants: bioswales, vegetative filter strips, infiltration structures, retention basins, and wetlands are some of these.

Post-Construction Stormwater Control BMP Manual - At the time of permit issuance, ADOT did not have a formal program for incorporation of post-construction stormwater quality elements into development or redevelopment. This permit requires, and ADOT is in the process of developing, a *Post-Construction Best Management Practice (BMP) Manual*. As part of development of the manual, ADOT will identify and evaluate permanent post-construction stormwater pollution control BMPs, develop design guidelines for selected permanent BMPs, compile and complete a manual, and require implementation of the BMPs described in the manual.

Post-Construction Stormwater Control BMPs - The previous permit required ADOT to "consider" structural stormwater controls for new highway development and redevelopment. This permit requires ADOT to install post-construction stormwater pollution control BMPs near unique and impaired waters. The permit also requires ADOT to evaluate the need for post-construction controls in MS4 compliance area and install those controls where appropriate. When controls are to be installed, they shall be completed as soon as practicable, but not later than three months after roadway construction is complete. To meet this permit requirement, construction/ installation of the post-construction stormwater pollution control BMPs may be necessary concurrently with construction of new highways or re-construction of highways. Additionally, since ADOT projects have an involved and lengthy approval process, the permit provides this condition is only applicable to projects that have not moved beyond Stage I of development (approximately 15% completion through ADOT's planning process.)

e. Measures to Control Pollutants from Roadways

Storm Sewer System and Highway Maintenance - Due to potential for street sweeping to be a significant source of pollutants to the storm sewer system, this activity has not been included as an authorized non-stormwater discharge. Alternatively, this activity is addressed in the maintenance and cleaning part of the permit and requires the implementation of appropriate BMPs.

Stabilize Roadway Slopes - The permit requires ADOT to develop a system to identify, track and prioritize the stabilization of road slopes that are 3:1 or steeper which are actively eroding and sediment is leaving the right of way or discharging to a WUS. The progress of this system and abatement projects is to be included in Annual Reports.

F. Stormwater discharges from ADOT maintenance facilities

Part 4.0 of the permit addresses ADOT's maintenance facilities which operate statewide. This part identifies certain facilities identified in part 4.2 of the permit, and listed below, for which ADOT is to develop a, or update the existing in some cases, Stormwater Pollution Prevention Plan (SWPPP) document. The requirements for these SWPPPs are similar to the minimum requirements for industrial facility SWPPPs.

ADOT has over 90 maintenance yards statewide, but is only required to write and implement SWPPPs for 19 of them, based on the following criteria: Maintenance Yards located in Phase I compliance areas; Maintenance Yards located in Phase II compliance areas; Maintenance Facilities located within ¼ mile of unique, impaired or not attaining waters; and the Little Antelope Yard, which ADOT leases from Coconino National Forest which requested that ADOT implement a SWPPP.

Avondale Maintenance Yard ²	Nogales Maintenance Yard ^{2, 3}
Bisbee Storage Yard ³	North Phoenix Maintenance Yard ²
Broadway Maintenance Yard ¹	Phoenix Equipment Services ¹
Douglas Maintenance Yard ²	Prescott Valley Maintenance Yard ²
Durango Maintenance Yard ¹	Statewide Striping Facility ¹
Flagstaff Maintenance Yard ²	Superior Maintenance Yard ³
Grand Avenue Landscape Maintenance Yard ¹	Superior Storage and Fuel Yard ³
Little Antelope Yard	Tucson Grant Road Maintenance Yard ¹
Mesa Country Club Maintenance Yard ¹	Yuma Maintenance Yard ²
Mesa Recker Road Maintenance Yard ¹	

¹ located in Phase I compliance areas

² located in Phase II compliance areas

³ located within ¼ mile of unique, impaired or not attaining waters

All ADOT other maintenance yards (or facilities) located statewide and outside the MS4 compliance areas are not required to have SWPPPs but are covered by this permit, and ADOT must install BMPs to prevent pollutants from discharging in stormwater. ADOT's administrative complexes and rest areas are excluded from permit requirements.

Special provisions

Grant Road Maintenance Yard - This facility is located on top of a closed municipal landfill owned by the City of Tucson. In addition to the other SWPPP requirements, ADOT must evaluate the site for erosion and the potential for exposed waste and correct these conditions if found.

Wickenburg Maintenance Facility - ADOT is to inspect and document the embankments armored with asphalt millings that show evidence of erosion and ensure that none of the material discharges offsite. This part also includes a provision for remedial investigation for historical spills and/or leaks known to have occurred at the facility and which may have potential to contribute pollutants to stormwater.

Implementing BMPs at other Maintenance Facilities

At all other ADOT facilities within the state for which no SWPPP is required, ADOT must implement the BMPs described in ADOT's *Maintenance and Facilities Best Management Practices (BMPs) Manual*. The permit directs ADOT to update this manual to ensure it complies with the provisions of this permit and to keep a copy of it readily available at each facility or at the nearest ADOT District Engineer's office. At a minimum, the updated manual must address potential pollutants from the following activities:

- vehicle and equipment maintenance and cleaning;
- repair and storage;
- vehicle fueling;
- bulk storage of construction and maintenance materials, pesticides and herbicides; and
- litter and debris generated from road maintenance.

H. Construction Activities – Part 5.0 of the permit.

ADOT's Clean Water Act compliance issues have been in large part related to contractor activities under the AZPDES Construction General Permit provisions. Previously, ADOT and its contractors filed separate Notices of Intent (NOIs) for coverage under the CGP. Under this individual permit which authorizes discharges from ADOT's construction activities, ADOT does not file an NOI with ADEQ for each construction project. Because ADOT manages highway construction projects statewide, certain efficiency is gained by allowing all ADOT construction activity statewide to be covered by this permit.

ADOT's contractors will, however, continue to file NOIs for coverage under the CGP and are subject to its provisions. ADOT continues to be responsible for complying with construction stormwater discharge requirements statewide whether activities are performed directly by ADOT staff or by contractors on behalf of ADOT. The permit clarifies ADOT's responsibility for ensuring that contractors adhere to the CGP. It is envisioned related provisions will typically be included as in ADOT contracts. ADOT is responsible for inspection oversight and must ensure that a trained and certified Erosion Control Coordinator inspects construction activity at each site. The permit also requires ADOT to implement a system to monitor contracted activities and enforce these provisions. In the Annual Report, ADOT is required and to list and describe all violations and enforcement responses taken against contractors.

Although the AZPDES Construction General Permit allows small construction sites with a rainfall erosivity factor of less than five to be waived from CGP requirements, this permit does not allow ADOT or its contractors to obtain this waiver. ADOT's projects which disturb less than five acres and which have predicted rainfall erosivity of less than five during the period of construction activity are required to follow the requirements of the construction part of this permit.

Permit requirements for construction activities are generally based on the AZPDES CGP (AZG2003-001), however, there may be variations based on considerations specific to ADOT.

This permit requires a combination of erosion and sediment control BMPs to be implemented. These categories of BMPs work together to minimize sediment discharge from a construction site. Erosion control BMPs (often referred to as stabilization BMPs) refer to covering or maintaining an existing cover over exposed soil. They are designed to prevent erosion and are the first line of defense in preventing off-site sedimentation. Erosion control can either be temporary (when construction activities cease on a site for more than 14 days) or final (permanent). Examples of erosion control BMPs include vegetative cover, seeding, mulching, rip-rap, and erosion control blankets.

Sediment control BMPs are designed to capture sediment that erosion control BMPs have failed to keep in place. These BMPs are typically found at the perimeter of a construction site and include silt fence, sediment basins and traps, inlet protection, and check dams. Except for those sediment control BMPs that are intended as permanent structures (i.e. a temporary sediment basin to become a permanent stormwater basin), the permit requires that ADOT remove these BMPs after final stabilization is achieved.

The erosion and sediment control BMPs are not only to be implemented, but they must be effective and inspected and maintained throughout the period of construction.

In dealing with final stabilization requirements, re-establishing vegetation to achieve final stabilization as required under the construction permit before coverage is terminated, can take an extended time in Arizona. This permit allows ADOT contractors to be released from their CGP obligations after interim stabilization is in place by filing an NOT. However, ADOT will continue to have responsibility for the construction site until final stabilization is completed. As such, ADEQ needs to know the status of these 'terminated' projects that are still being maintained by ADOT. Therefore, the permit requires that ADOT provide a semi-annual list to ADEQ of all construction projects for which ADOT has achieved final stabilization.

Portable asphalt plants and concrete batch plants

ADOT does not own or directly operate any asphalt or concrete batch plants. Contractors set up these facilities to service provisions in specific ADOT construction contracts. Concrete batch plants are highly mobile and can be set up local on the job site. However, portable asphalt plants, which incur higher mobilization/ demobilization costs, must be set up in the material source site for each highway construction project. Asphalt, cement and the aggregate produced and stored in bulk storage at the material source site are mixed together. Hence, the plant is there for the duration of job and there are increased chances for spills and discharges. If such a plant is associated with a material source pit, where it serves several independent projects, as well as ADOT projects, the contractor has a responsibility to file the NOI for coverage and comply with the Multi-Sector General Permit (MSGP). If such a plant is mobilized exclusively for a specific construction project, however, the contractor can obtain coverage under the Construction General Permit. Prior to this permit, it was unclear whether or which of these plants were covered by either stormwater general permit as there was no tracking system within ADOT to verify this was done. ADOT is now required to comply with terms of this individual permit pertaining to these facilities. Additionally, past practice for asphalt seepage pits includes on-site disposal of wastes; this permit clarifies that the wastes must be properly handled under an aquifer protection permit or another permitted disposal facility.

I. Industrial Activities- Part 6 of the permit.

To comply with the MSGP, dischargers receive authorization by writing and implementing SWPPPs and filing NOIs for each industrial site. This permit brings into one regulatory document all industrial facilities (in accordance with 40 CFR 122.26(b)(14)(i) through (ix) and (xi)) that are currently under ADOT's control, including all material source activities. The permit also provides that any new industrial facilities in the future will be addressed through modification to include them in this permit.

For ADOT's industrial facilities that are subject to regulation, and which may have previously been permitted under the MSGP, most of the sector-specific provisions of the MSGP have been incorporated into this permit. Previously, only three facilities were covered under the MSGP 2000: Grand Canyon Airport at Tusayan, the Durango Sign Factory in Phoenix, and the Print Shop in Phoenix. ADOT had previously written a SWPPP for the Wickenburg Maintenance Yard (which includes a material source stockpile area). However, prior to this permit's issuance, ADOT filed a Notice of Termination. ADOT's justification for terminating coverage was that the Wickenburg Maintenance Yard is not an industrial facility in accordance with 40 CFR 122.26(b)(14)(i) through (xi). Also, the permit provides that new industrial facilities that ADOT may open in the future will be regulated under this permit instead of the MSGP. Finally, the Print shop at the Phoenix Administrative Headquarters qualifies for a No Exposure Exclusion, and therefore has minimal regulation under the permit, provided that site personnel are appropriately trained and that operations continue to comply with the 'No Exposure' conditions in the permit.

Grand Canyon Airport

ADOT's Grand Canyon Airport is primarily engaged in the following types of activities:

- Air transportation (scheduled and non-scheduled) and air courier;
- Air traffic control;
- Aircraft storage; airfreight handling; hangar rental and operations; airport terminal services;
- Airport and aircraft service and maintenance (aircraft cleaning and janitorial service; aircraft and ground vehicle servicing, maintenance and repair, aircraft upholstery repair, vehicle maintenance shops; material handling facilities; equipment clearing operations);

- Equipment cleaning and maintenance (including vehicle and equipment rehabilitation mechanical repairs, painting, fueling, and lubrication); and
- Airport and aircraft de-icing operations.

Note: “de-icing” means both de-icing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities.

As an option, instead of writing and implementing the entire SWPPP, ADOT and the tenants of the airport may opt to work in partnership to develop and implement a SWPPP.

For purposes of the Grand Canyon Airport, “ADOT” means the Arizona Department of Transportation as permittee, and the tenants or other fixed-based operations at the airport under ADOT’s control. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties who have contracts with the airport authority to conduct business operations on airport property and whose operations result in stormwater discharges associated with industrial activity.

Durango Sign Factory

ADOT activities at the sign factory include fabricating signs by printing or electronic design and cut; bulk material storage (covered and uncovered) for sign production and areas for loading; and unloading of sign making materials.

Material Sources

Some of the material sources that ADOT uses, leases, operates and/ or owns are categorized as “Sector J” facilities that should have obtained permit coverage under the MSGP. Additionally, there are numerous inactive cinder or sand and gravel pits where processed material is stored that may serve as a source of pollutants in stormwater. These are considered industrial activities that are addressed in this permit. The definitions for “Active Material Source Site”, “Inactive Material Source Site”, and “Temporarily Inactive Material Source Site” used below do not supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

In addition, ADOT uses material source sites (e.g., cinder and sand and gravel pits) to manufacture cold mix and hot mix asphalt. ADOT also uses material source sites to store processed material (mined, crushed, screened, washed aggregate) whether the site is being actively mined or not. At many sites, the processed material is stored and used for producing either hot mix asphalt, cold mix asphalt, or both at the site. This means that portable asphalt plants are set up in the pit for lengthy periods of time to service a highway construction project. These are also considered sites of industrial activity with sources of stormwater pollution and are subject to this permit.

For the permit application process, ADOT was required to inventory all material sources statewide, including material stockpiles at inactive sites. The first and subsequent drafts of their Material Sources Inventory (see table in “Revised ADOT Material Sources Inventory and Reclamation Definition, November 16, 2004”) categorized all material sources statewide into six groups, I through VI. Prior to permit issuance, ADOT updated the inventory in each Quarterly Report. The December 31, 2006 Quarterly Report indicated that ADOT’s Material Group had visited all 231 sites listed in the November 16, 2004 inventory. The report said 12 of 37 sites needed SWPPPs and that those had been completed. During the permitting process, the sites were reclassified into Groups A, B, and C, and Group I Non-Mining sites, as defined below.

ADOT also has material source operations at joint-use sites where they have an operating interest, but cannot control the activities of other operators at the site, therefore ADOT is only accountable for certain BMP provisions, and can not be held accountable for the activities of others, including final stabilization. Hence, a distinction is made in the permit for the sites that are “for exclusive ADOT use” or “under exclusive ADOT control.”

The permit requires an updated inventory of material source sites and those requiring SWPPPs in each Annual Report. A summary of ADOT's material sources inventory, including their reclassification scheme, follows.

Group A - Active Phase: A materials source in this group is where activities related to the extraction, processing, removal or recovery of minerals is being conducted. Group A may also include "Temporarily Inactive" sites, which means a site or portion of a site where mining has occurred in the past, yet currently mining is not being actively undertaken and the facility may or may not be covered by an active mining permit issued by the landowner(s), applicable State or Federal government agency.

Group B - Inactive Phase: A material source in this group will include a site or portion of a site where mining occurred in the past but is no longer active and where the inactive portion may or may not be covered by a permit issued by the private landowner(s) or the applicable State or Federal government agency. A site that is no longer being mined will remain in Group B until it is ready for reclamation, which includes returning the land to a desired contour, at which time it would be moved to Group C.

Group C - Reclamation Phase: Includes activities intended to return the land to its pre-mining condition. Once a site is reclaimed, it will be removed from this Group and no longer subject to this permit.

Group I: Non-Mining Sites

ADOT also identified this group, which is composed of approximately 50 sites with ADOT material source designations that were included in the original ADOT inventory but are not mining sites. As such they would not be regulated under Sector J of the MSGP. However, stockpiles at Group I sites may need BMPs in place to minimize the potential for pollutant discharges to stormwater. Group I sites do not require SWPPPs and are not subject to the reclamation and final stabilization requirements of the permit. ADOT indicates some Group 1 locations are actually undisturbed sites, or areas that are currently built over and would have no further requirements under the permit. The permit expects ADOT to maintain an Inventory of Group 1 sites, be aware of potential pollutant discharges to stormwater from stockpiled materials and apply BMPs where necessary to control pollutants in stormwater.

J. Protection of Water Quality and Compliance with Arizona Water Quality Standards – Part 7.0

1. Protection of Water Quality from MS4 Discharges

ADOT is required to protect water quality by implementing controls and BMPs to reduce to the maximum extent practicable, pollutant discharges from the MS4 system that may cause or contribute to an exceedance of any applicable water quality standard. To protect water quality, ADOT will fully implement the requirements of the SSWMP and all other requirements of this permit. ADOT must also modify the SSWMP during the life of the permit as necessary to improve the effectiveness of the program in reducing the discharge of pollutants from the MS4, with a goal towards attaining surface water quality standards.

2. Compliance with Arizona Water Quality Standards for Discharges from Industrial and Construction Activities

Discharges from industrial and construction activities are subject to the surface water quality standards of the State of Arizona (A.A.C. Title 18, Chapter 11, Article 1) including narrative limitations. Such discharges may not cause or contribute to an exceedance of any applicable water quality standards. The standards that apply to a waterbody apply equally to stormwater and non-stormwater discharges. The applicable standards are included in the rules and correlate to the designated uses of the water.

3. Total Maximum Daily Loads (TMDLs)

If ADOT discharges into any waterbody that has a completed TMDL, those discharges must conform to the TMDL documents if they address any activities that ADOT is conducting or pollutants that ADOT may release. If the TMDL documents are non-specific, ADOT is to address pollutants of concern for which the waterbody is impaired and employ BMPs to minimize those pollutants in the appropriate stormwater pollution prevention documents.

The most recent approved and draft 305(b) Assessment and 303(d) Listing Report is available on ADEQ's website at <http://www.azdeq.gov/environ/water/assessment/assess.html>. Current status of TMDLs is available at <http://www.azdeq.gov/environ/water/assessment/tmdl.html>.

4. Antidegradation

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The antidegradation provisions require ADEQ to determine in the permitting process whether discharges under a proposed AZPDES permit will significantly degrade surface water quality. This permit requires ADOT to implement and maintain stormwater and non-stormwater BMPs that minimize the discharge of pollutants from the MS4 system to the MEP. The permit also contains discharge limitations and SSWMP requirements to minimize the discharge of pollutants to receiving waters. Monitoring conditions are specified in this permit to characterize stormwater quality, assess impacts of stormwater on water quality, evaluate the effectiveness of specific BMPs in minimizing the discharge of pollutants, and to estimate pollutant loads to receiving waters. As long as ADOT maintains compliance with the provisions of this permit, the designated uses of the receiving waters will be presumed protected, and the antidegradation requirements under A.A.C. R18-11-107.C will be met.

K. Monitoring Requirements

1. General

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance and to monitor discharge impacts on receiving water quality. All AZPDES permit holders have the responsibility to determine that all data collected for purposes of a permit meet the requirements specified in this permit and are collected, analyzed, and properly reported to ADEQ.

The permit requires monitoring of stormwater discharges associated with all three categories of activities: construction, industrial, and MS4. Monitoring locations, frequency, and parameters vary by discharge category and are specified in the appropriate permit section. ADOT is responsible for conducting and reporting results to ADEQ on Discharge Monitoring Reports (DMRs) or as specified in the permit.

The Part 8.0 Monitoring Requirements are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR122.41(e). ADEQ recognizes that sampling and analyses may in some cases be contracted to a third party. In this case, a permittee still has responsibilities for ensuring that the contract provisions and the data submitted are consistent with the permit requirements. A cornerstone of an effective monitoring program is the Quality Assurance (QA) and Quality Control (QC) processes that apply to the sample collection, analyses, and review of analytical results. The permit requires ADOT to keep a QA manual at the various sites to document the data collection process (whether done by ADOT or a 3rd party). The required elements of the QA manual are outlined in the permit. The monitoring conditions specified in the permit include monitoring protocols for quality assurance, sample collection, analytical methods, and laboratory selection; monitoring record retention; and conditions for modifying monitoring requirements.

Monitoring conditions that are specified in 40 CFR 122.41 (Conditions Applicable to All NPDES permits) and specified in the Standard Conditions of the existing permit, such as Monitoring and Records, have been relocated to the Monitoring Requirements section of this permit for convenience.

Reporting and records retention requirements for monitoring results are detailed in Part 8.3.4 of the permit, including completion and submittal of DMRs.

2. Construction

The permit requires monitoring of construction site discharges at those sites with any discharge point located within 1/4 mile of an impaired or unique water. For these sites, ADOT is required to include a monitoring plan which meets the conditions of the permit in the SWPPP. The required elements of the monitoring plan are outlined in the permit. Turbidity values collected upstream and downstream of the construction site shall be used to provide a rapid indication if the site is contributing sediment to the receiving water. The permit also contains a provision that ADOT may on a site-specific basis propose an alternative monitoring plan for ADEQ approval.

3. Industrial

Monitoring locations for industrial facilities are positioned at the outfall points where the discharge is to a water of the U.S.

Certain discharges associated with industrial activity are subject to Effluent Limitation Guidelines (ELGs), which are in place in state and federal regulations pursuant to the Clean Water Act. Portable asphalt plants and concrete batch plants are industrial facilities subject to ELGs, although in this permit, they appear under the construction section. The permit thus requires ADOT to monitor for the constituents listed in the monitoring section if they have these facilities located within 1/4 mile of impaired or unique waters.

4. MS4

This permit requires ADOT to conduct stormwater sampling ("wet weather monitoring") throughout the permit term. ADOT submitted a revised stormwater monitoring program to the EPA in February 2002. The revised stormwater monitoring program was not implemented from 2001 through 2004 while ADOT was awaiting review and approval by EPA and ADEQ. Stormwater monitoring was performed in 2005, 2006 and 2007. This permit requires ADOT to implement a monitoring program consistent with the terms and conditions of the permit.

Representative Storm Events: A representative storm, as described at 40 CFR 122.21(g)(7)(ii), is a storm event of greater than 0.1 inch of rainfall and at least 72 hours after the previously measurable (greater than 0.1 inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed fifty percent of the average or median rainfall event in the area.

Stormwater sampling required under the permit is to be representative of storm events for the region. During a compliance audit of the City of Phoenix MS4 program, EPA identified the high range of duration as limiting the number of storm events and sampling opportunities in Arizona. The determination of a representative storm using duration, combined with drought conditions over the last decade, has resulted in limited opportunities for Arizona Phase I MS4s to collect an adequate number of samples to assess stormwater quality or comply with the terms of the existing permits.

As a result, representative storm is defined in ADOT's permit as a storm event of greater than 0.1 inch of rainfall and at least 72 hours after the previously measurable (greater than 0.1 inch rainfall) storm event. The duration of rainfall of a representative storm has been omitted from the definition because it is not representative of the high intensity storms of short duration characteristic of the region's summer monsoon season.

Omitting the duration of an event from the definition of a representative storm and defining a representative storm event as greater than 0.1 inch of rainfall increases the number of representative storm events; simplifies permit monitoring conditions; and is more appropriate for Arizona's precipitation patterns. This is consistent with the definition of representative storm in ADOT's *Stormwater Monitoring Guidance Manual for MS4 Activities*.

Stormwater Monitoring Seasons: Arizona Phase I MS4s varied slightly in the months identified as representative of the summer wet season and winter wet season as used to assess variations in seasonal pollutant loads. For the purpose of simplifying monitoring conditions and ensuring that all storm events fall into one of the two seasons for the purposes of MS4 monitoring, ADEQ has defined monitoring seasons in the permit as follows:

Summer wet season: June 1 – October 31
Winter wet season: November 1 – May 31

The frequency for MS4 stormwater sampling in this permit is at least once each wet season (summer and winter) from each monitoring location.

Stormwater Monitoring Locations: ADOT's initial permit required only two monitoring locations: one representative site in both the Phoenix and Tucson metropolitan areas. The new permit's area is expanded to include the entire state of Arizona; therefore, this permit requires a total of five monitoring locations consistent with the provisions of 40 CFR 122.26(d)(2)(iii)(A) which envisions that between five and ten outfalls will be selected for MS4 monitoring programs.

Additionally, because the intent of the monitoring program is to characterize discharges to waters of the U.S., ADOT must replace the Phoenix monitoring location which discharges to a retention basin with location that discharges directly to a water of U.S. The new Phoenix monitoring location is not required to be within the city boundaries of Phoenix but must be located within the Phoenix-Mesa Urbanized Area (as defined by the 2000 Census) and must be representative of a highly urbanized area.

Sample Frequencies and Parameters: This permit includes seasonal stormwater monitoring for a number of pollutants, including Total Dissolved Solids (TDS); Suspended Sediment Concentration (SSC); Biochemical Oxygen Demand (BOD); Chemical Oxygen Demand (COD); nutrients; metals; *Escherichia coli* (*E. coli*); and several organic compounds, including TPH, oil and grease, polynuclear aromatic hydrocarbons (PAHs), BTEX and total phenols. In addition, this permit requires monitoring of priority pollutant pesticides (which may be carried with disturbed sediments) to determine their presence in stormwater. Most parameters are pollutants that have found in monitoring studies related to DOTs and highway run-off characterizations, such as those conducted by ADOT, NURP, USDOT, EPA, and CalTrans. In consideration of the higher monitoring cost, the permit requires sampling of pesticides and organics on a less frequent basis (two years during the permit term).

First Flush Discharge: Another MS4 monitoring condition in this permit requires that composite stormwater samples include the "first flush discharge" (first 30 minutes of stormwater discharge) of a representative storm to identify high pollutant loads, as well as assess the effectiveness of structural controls, such as retention basins, in managing the initial first flush of pollutants. The first flush discharge may also be effective in detecting non-stormwater discharges to the stormwater system because such pollutants may be flushed out of the system during the initial portion of the discharge. However, ADEQ recognizes there can be challenges in collecting grab samples within the first 30 minutes of discharge. However, the permit requires ADOT to include the first flush in sampling events whenever possible to do so

L. Reporting Requirements in Part 9.0**1. Annual Reporting**

This permit requires that ADOT prepare an Annual Report summarizing the progress of the SSWMP and the findings of monitoring activities for each year of the permit term. The Annual Report must include an evaluation of the effectiveness of the SSWMP in reducing the release of pollutants to and discharge of pollutants from the storm sewer system, and an assessment of compliance with, or progress towards attainment of, applicable water quality standards. Because this is a combined permit, the Annual Report includes reporting requirements for ADOT's MS4, construction, and industrial activities.

This permit specifies the detailed information to be provided in the Annual Report in an effort to clarify the necessary content and the amount of detail needed. In addition, ADEQ developed the Annual Report Form in Appendix B to streamline the reporting process for ADOT and provide a standard format. This format is intended to clarify ADOT's reporting burden in terms of volume and detail and expedite ADEQ's review of the submitted information to determine compliance.

2. Water Quality Standards for the MS4 discharge

ADOT is required to report any discharge that contains a pollutant at a level that is higher than an applicable surface water quality standard, as measured at an MS4 outfall monitoring location. This permit describes the specific information to be reported to ADEQ in this event. Additionally, if the pollutant is detected at the same outfall more than once (i.e., is reoccurring) an investigation of the source(s) is to be conducted.

3. Other Reporting Requirements

Additional reporting requirements are specified under the Standard Conditions of the permit (Section 11.0), such as 24 hour reporting, anticipated or other noncompliance, and signatory and certification requirements. These standard conditions are referenced in the Reporting Requirements section of this permit for convenience.

4. Submittal Schedule

Table 9.2 is intended for both ADOT and ADEQ to track the activities and submittal dates required by this permit. The schedule includes a summary of the due dates specified in the permit, and describes how ADOT must report on the activity.

M. Standard Conditions

In accordance with 40 CFR 122.41, conditions applicable to all NPDES permits are included in Part 11.0 of this permit. Other standard conditions are specified in this permit in accordance with 40 CFR 122.21, 122.22, 122.64, Arizona Revised Statutes, and the Clean Water Act.

IV. ADMINISTRATIVE INFORMATION**A. Public Notice (A.A.C. R18-9-A907)**

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

B. Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

C. Public Hearing (A.A.C R18-9-A908(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

D. EPA Review (A.A.C. R18-9-A908(C))

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

VI. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Dennis L. Turner
Arizona Department of Environmental Quality
Water Quality Division
Surface Water Section, Stormwater & General Permits Unit
Mail Code 5415A-1
1110 W. Washington Street
Phoenix, Arizona 85007

Telephone: (602) 771-4501
Email address: turner.dennis@azdeq.gov

VII. REFERENCES

While developing conditions for this permit, including discharge limitations, special conditions, monitoring requirements, and reporting requirements, the following information sources were used:

Statewide Stormwater Permit Application, March 1, 2005, with Exhibits 1 thru 22(e)

- Plan of Operation and Restoration, April 2005 (permit application addendum)

APP/ AZPDES Consent Order, Quarterly Reports:

- June 30, 2004, with Appendices A thru L
 - Material Sources Proposal (with initial list), May 27, 2004, Appendix J
- August 31, 2004, with Appendices A thru K
 - Monitoring Plan Proposal, June 4, 2004, Appendix E
- November 30, 2004, with Appendices A thru K
- February 28, 2005, with Appendices A thru F
- June 30, 2005, with Appendices A thru G
- September 30, 2005, with Appendices A thru I
- December 31, 2005
- March 31, 2006
- June 30, 2006
- September 30, 2006
- December 31, 2006
- March 31, 2007
- June 30, 2007

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